

LISTING OF THE CLAIMS

This listing of claims is the current listing of claims currently pending in the application:

Listing of Claims:

1. (Currently Amended) A method for synchronizing a wakeup schedule for a first communications module and a wakeup schedule for a second communications module in a wireless mobile unit, said the method comprising:

computing a next wakeup time for the first communication module, the computing ~~at~~ is based at least in part on a time period set by the wireless mobile unit;

computing a next wakeup time for the second communication module; and

synchronizing a new wakeup time for the second communication module to the next wakeup time for the first communication module ~~when said if the~~ next wakeup time for the first communication module is earlier than the next wakeup time for the second communication module.

2. (Currently Amended) A method for synchronizing a wakeup schedule for an Ultra-Wideband (UWB) module and a wakeup schedule for a communications module in a wireless mobile unit, said the method comprising:

calculating a next communications wakeup time based at least in part on a time period set by the wireless mobile unit;

calculating a next UWB wakeup time; and

synchronizing a new UWB wakeup time to ~~said the~~ next communications wakeup time ~~when said if the~~ next communications wakeup time is earlier than the next UWB wakeup time.

3. (Cancelled)

4. (Original) The method of claim 2 further comprising:
determining a current communications time; and
determining a current UWB time.

5. (Currently Amended) The method of claim 4 further comprising ~~a step of~~
determining a communications interval, ~~said the~~ communications interval equaling ~~said~~
~~the~~ next communications wakeup time less ~~said the~~ current communications time.

6. (Currently Amended) The method of claim 5 further comprising ~~a step of~~
synchronizing ~~said the~~ new UWB wakeup time to ~~said the~~ next communications wakeup
time ~~when said if the~~ current UWB time plus ~~said the~~ communications interval is less
than ~~said the~~ next UWB time.

7. (Currently Amended) The method of claim 2 further comprising ~~a step of~~
performing a UWB wakeup process and a communications wakeup process substantially
at ~~said the~~ new UWB wakeup time.

8. (Currently Amended) The method of claim 7 wherein ~~said the~~ performing
~~step~~ comprises ~~a step of~~ powering on ~~said the~~ UWB module and ~~said the~~ communications
module substantially simultaneously so as to reduce ~~said the~~ wireless mobile unit's power
consumption.

9. (Currently Amended) A method for synchronizing a wakeup schedule for an Ultra-Wideband (UWB) module and a wakeup schedule for a communications module in a wireless mobile unit, said the method comprising:

determining a current communications time from a received pilot signal transmitted by a base station;

determining a current UWB time from an internal clock in the UWB module;

calculating a communications interval, said the communications interval equaling a next communications wakeup time less said the current communications time; and

synchronizing a new UWB wakeup time to said the next communications wakeup time ~~when said if the~~ current UWB time plus said the communications interval is less than a next UWB wakeup time.

10. (Currently Amended) The method of claim 9 further comprising ~~steps of~~: establishing said the next communications wakeup time prior to ~~said step of the~~ calculating said the communications ~~time~~ interval; and

establishing said the next UWB wakeup time prior to ~~said step of the~~ synchronizing said the new UWB wakeup time.

11. (Currently Amended) The method of claim 9 further comprising ~~a step of~~ performing a UWB wakeup process and a communications wakeup process substantially at said the new UWB wakeup time.

12. (Currently Amended) The method of claim 11 wherein said the performing ~~step~~ comprises ~~a step of~~ powering on said the UWB module and said the communications module substantially simultaneously ~~so as to reduce said wireless mobile unit's power consumption~~.

13. (Currently Amended) The method of claim 9 wherein said the wireless mobile unit comprises a UWB-enabled communications mobile phone.

14. (Currently Amended) A wireless mobile unit comprising:
a communications module configured to perform a communications wakeup process at a next communications wakeup time, wherein ~~said the~~ the wakeup time is computed based at least in part on a set time period and the communications module is further configured to receive a pilot signal and to derive a current communications time from ~~said the~~ the pilot signal;

an Ultra-Wideband (UWB) module configured to perform a UWB wakeup process, wherein the UWB module comprises a clock, ~~said the~~ the clock being configured to track a current UWB time; and

a processor configured to synchronize a new UWB wakeup time to ~~said the~~ the next communications wakeup time ~~when said if the~~ if the next communications wakeup time is earlier than a next UWB wakeup time.

15. (Cancelled)

16. (Currently Amended) The wireless mobile unit of claim 14 wherein ~~said the~~ the UWB module is configured to perform ~~said the~~ the UWB wakeup process at ~~said the~~ the new UWB wakeup time ~~when said if the~~ if the next communications wakeup time is earlier than ~~said the~~ the next UWB wakeup time.

17-19. (Cancelled)

20. (Currently Amended) The wireless mobile unit of claim 14 wherein ~~said the~~ the processor is further configured to calculate a communications interval, ~~said the~~ the communications interval equaling ~~said the~~ the next communications wakeup time less ~~said the~~ the current communications time.

21. (Currently Amended) The wireless mobile unit of claim 20 wherein ~~said the~~ the processor is further configured to synchronize ~~said the~~ the new UWB wakeup time to ~~said the~~ the next communications wakeup time ~~when said if the~~ if the current UWB time plus ~~said the~~ the communications interval is less than ~~said the~~ the next UWB wakeup time.

22. (Currently Amended) The wireless mobile unit of claim 14 wherein said the communications module performs said the communications wakeup process and said the UWB module performs said the UWB wakeup process substantially at said the new UWB wakeup time.

23. (Currently Amended) The wireless mobile unit of claim 22 wherein said the communications module and said the UWB module are configured to power on substantially simultaneously ~~so as to reduce said wireless mobile unit's power consumption.~~

24. (Currently Amended) The wireless mobile unit of claim 14 wherein said the wireless mobile unit is a UWB-enabled communications mobile phone.

25. (Currently Amended) A wireless unit comprising:
means for storing data;
means for performing a communications wakeup process at a next communications wakeup time;
means for computing the next communications wakeup time; and
means for synchronizing a new Ultra-Wideband (UWB) wakeup time to said the next communications wakeup time ~~when said if the~~ next communications wakeup time is earlier than a next UWB wakeup time.

26. (Cancelled)

27. (Currently Amended) A digital signals processing apparatus, comprising:
a memory means for storing digital data; and
a digital signal processing means for interpreting digital signals to synchronize a
wakeup schedule for an Ultra-Wideband (UWB) module and a wakeup schedule for a
communications module in a wireless mobile unit by:

computing a next communications wakeup time based at least in part on a
set time period; and

synchronizing a new UWB wakeup time to ~~said the~~ next communications
wakeup time ~~when said if the~~ next communications wakeup time is earlier than a
next UWB wakeup time.

28. (Currently Amended) The apparatus of claim 27, ~~said the~~ digital signal
processing means further interpreting digital signals to establish ~~said the~~ next UWB
wakeup time after ~~said the~~ computing a ~~next communications wakeup time based at least~~
~~in part on a set time period~~, and before ~~said the~~ synchronizing a ~~new~~ UWB wakeup time.